

**Notice of Allowability**

Application No.

10/759,398

Examiner

Sow-Fun Hon

Applicant(s)

HATTORI ET AL.

Art Unit

1772

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 12/29/06.
2. ☒ The allowed claim(s) is/are 1,3 and 5-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>2/7/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                       |
|  | 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u> .                               |

Continuation of Attachment(s) 9. Other: The drawings filed 01/16/04 are accepted by the examiner.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tom Langer on February 7, 2007.

The application has been amended as follows:

2. Claim 2 is cancelled.

3. Rewrite claim 1 as

- - A semi-transmitting mirror-possessing substrate assembly comprising:  
a glass substrate;  
a foundation film directly formed on said glass substrate;  
a semi-transmitting reflective film directly formed on said foundation film; and  
a liquid crystal layer formed on said semi-transmitting reflective film and  
interposed between a pair of transparent conductive films,  
wherein said foundation film is made of silicon oxide (SiOx) and has a thickness in a  
range of greater than 0 to 8 nm, and wherein said semi-transmitting reflective film is  
made of at least one selected from the group consisting of Al and Al alloys. - -

4. Amend claim 3, line 2: after "assembly of claim", replace "2" with - - 1 - -.

Art Unit: 1772

5. The following is an examiner's statement of reasons for allowance:

The closest cited prior art of record, US 5,157,470, fails to teach or suggest, even in view of US 6,686,985, US 6,326,642 and US 6,277,507, the combination of a semi-transmitting mirror-possessing substrate assembly comprising: a glass substrate; a foundation film directly formed on said glass substrate; a semi-transmitting reflective film directly formed on said foundation film; and a liquid crystal layer formed on said semi-transmitting reflective film and interposed between a pair of transparent conductive films, wherein said foundation film is made of silicon oxide (SiO<sub>x</sub>) and has a thickness in a range of greater than 0 to 8 nm, and wherein said semi-transmitting reflective film is made of at least one selected from the group consisting of Al and Al alloys. None of the references teach the specific arrangement of compositional layers. Furthermore, Applicant's specification demonstrates superior results in terms of the combination of optical properties of reflectivity, absorptivity and transmissivity, of the semi-transmitting mirror-possessing substrate assembly, when the silicon oxide thickness is within the range of greater than 0 to 8 nm. See Fig. 6 and Table 1.

Art Unit: 1772

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon  
Sow-Fun Hon

02/15/07



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